SNS Instrument Systems Overview

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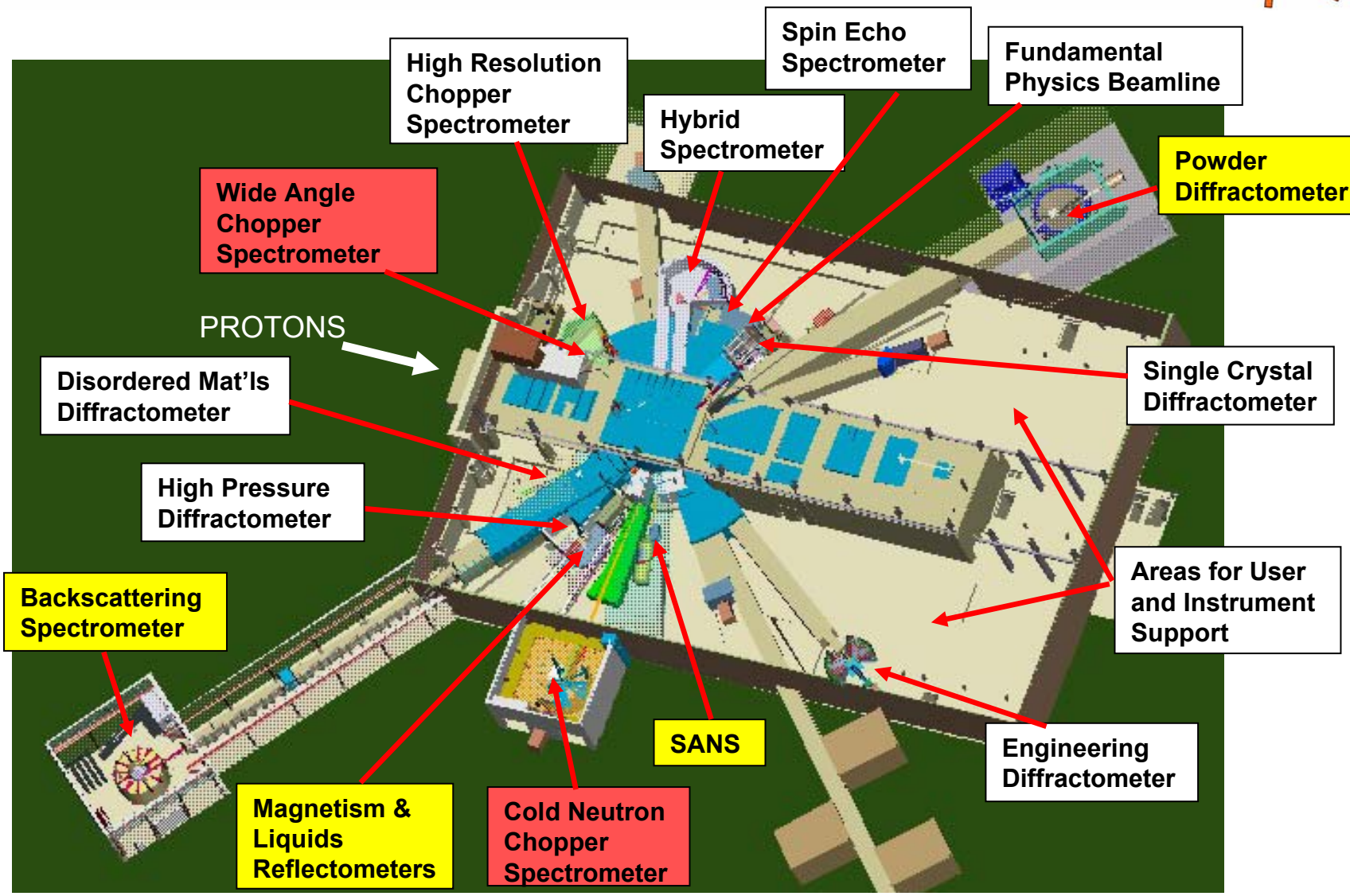
February 7-8, 2002

Overview

- SNS facility plan
- Instrument layout within the Target Building
- Shared component design activities
- Construction status

SNS Site Plan

Instrument Layout



Shared Design Activities

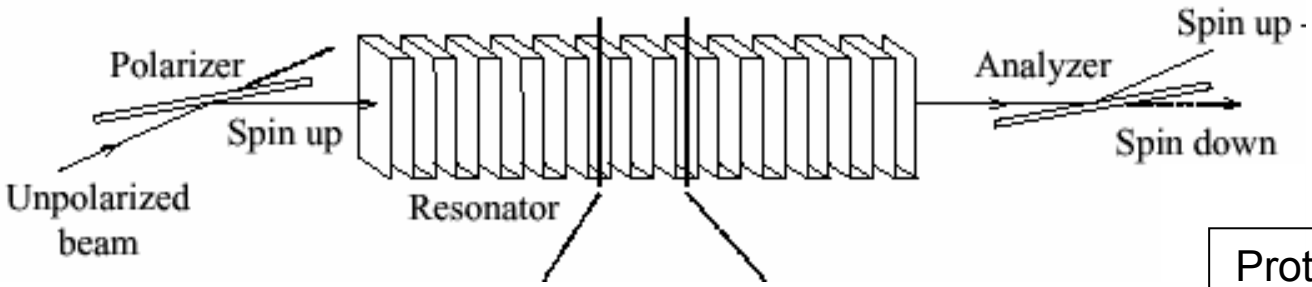
- Interfaces (all)
- Data Acquisition (Rick Riedel)
  - Presentation at this meeting.
- Detectors (Ron Cooper)
- Choppers (Ralph Niemann/David Chojnowski)
- Sample Environment (Lou Santodonato)
- Neutron Optics (Michael Agamalian)
- Shielding (Tom Fornek)

T0 Chopper on GPPD at IPNS

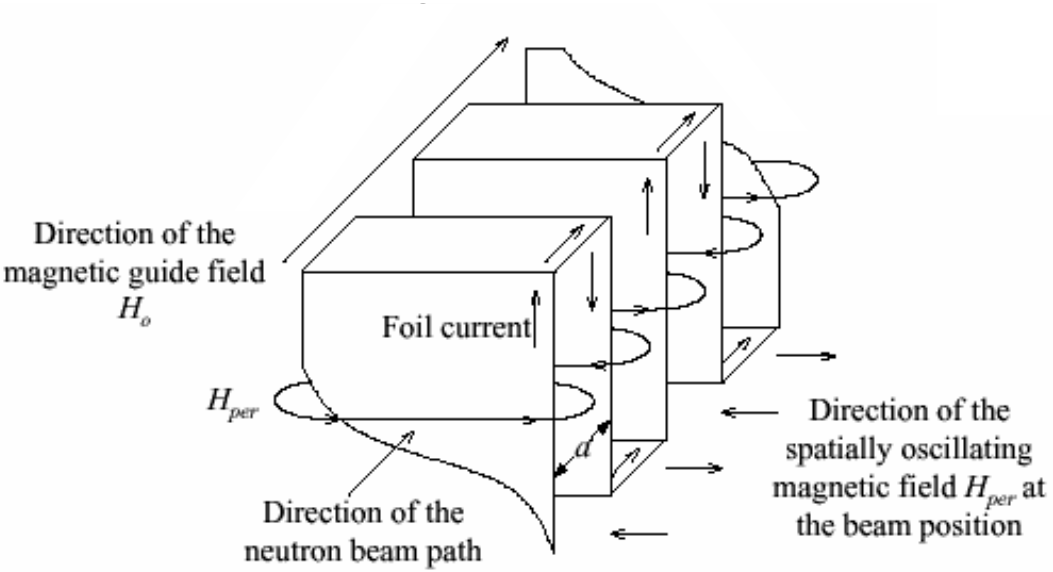
T0 chopper in place in GPPD beam line

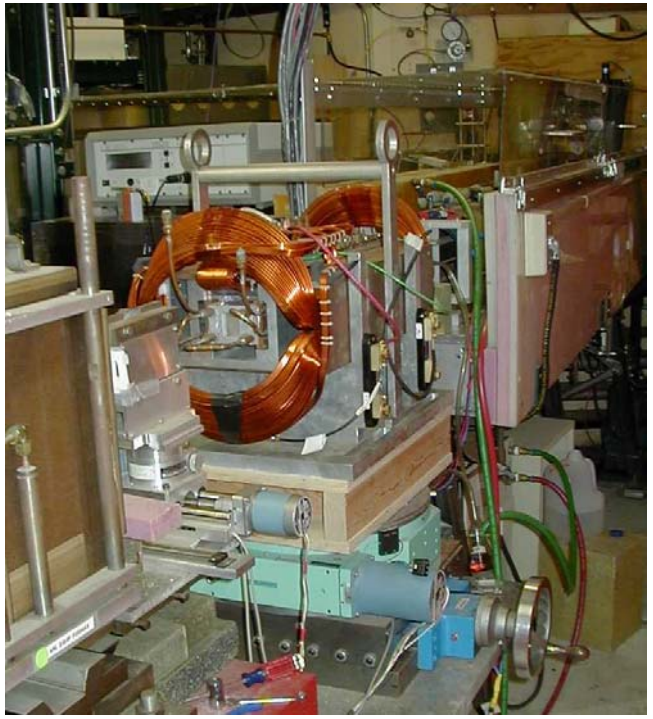
Installing the beam tube above the chopper motor

Drabkin Filter



Prototype being tested on IPNS reflectometer

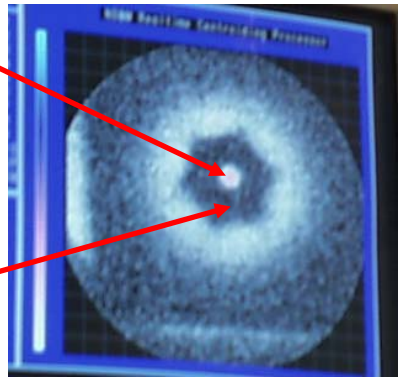




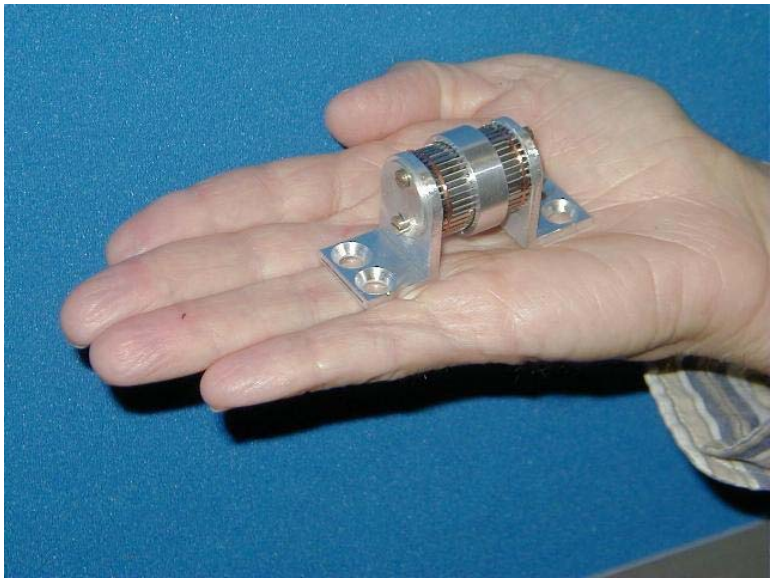
Prototype Focusing Optics

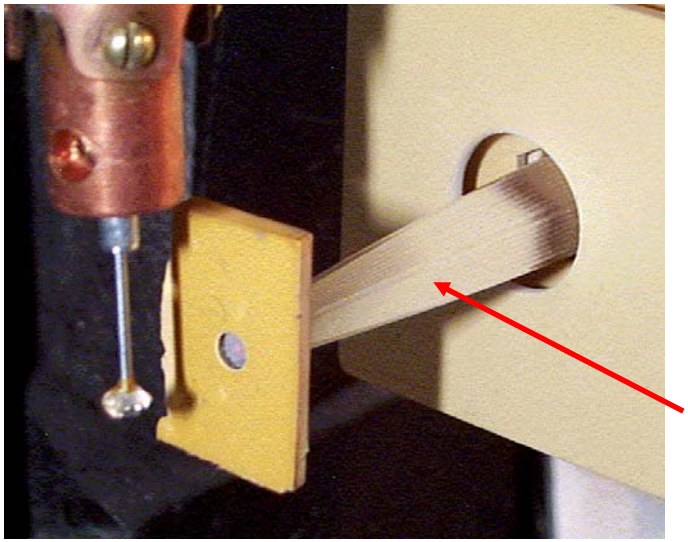
Focused neutron spot from polycapillary optic

Shadow from optic



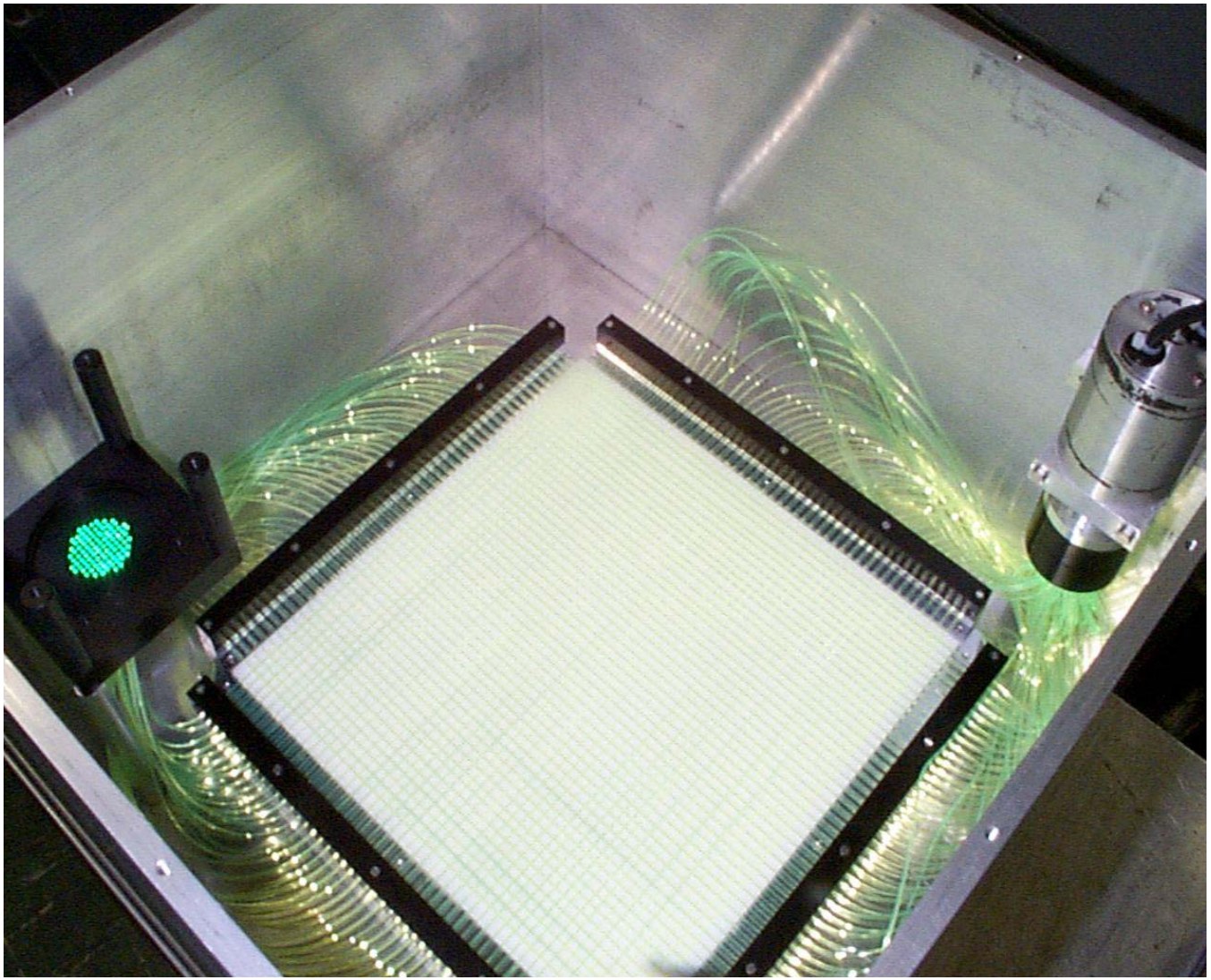
Prototype nested elliptical lens for focusing neutrons on a small sample. Prototype was built for SNS by Mirrotron and was tested at NIST.





Prototype polycapillary focusing optic from XOS tested at IPNS

Prototype Scintillator Detector with Wavelength-Shifting Optical Fibers



Construction Status - 1

Arial View of SNS Site from Front End– Oct 2001

Construction Status - 2

Arial View of Entire SNS Site – Oct 2001

Construction Status - 3

Arial View Ring and Target Area – Oct 2001

Construction Status - 4

Linac Tunnel from Hill – Jan 2002

Construction Status - 5

Target Building and Water Tower from CLO End – Jan 2002

Construction Status - 6

Target Building from Ring End – Jan 2002